



# Horticulture in China The Farm-Level Picture

John Chapple  
Sino Analytica China

# My Background

## John CHAPPLE

### Current Activities:

- 7th year in China, developed a farm and processing factories, and then developed **Sino Analytica**
- Successfully grew, processed and exported vegetables to Europe, Japan, and the USA from China

### Previous Activities:

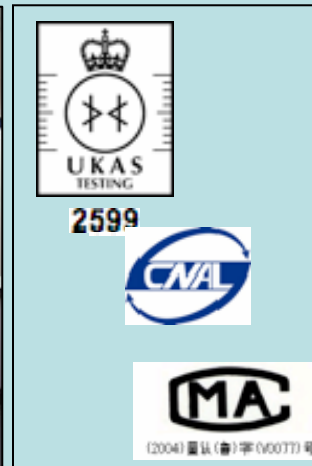
- Degree in Agriculture at Newcastle University (UK).
- 20 years involvement in the UK farming and processing industry.
- Wide range of experience in livestock and crops.
- Preferred areas are agronomy and business development.



Sound farming background

# What is Sino Analytica?

- China's 1st world-class independent food testing laboratory
- Established in 2003
- Privately owned joint venture
- UKAS, CNAL and CMA accredited
- Cooperate with the Central Science Laboratory (CSL) and Campden & Chorleywood Research Association both in UK



# Why are labs like Sino Analytica needed?

- Horticulture and the food industry are facing many challenges.
- Huge population to feed and comparatively little land available to do it.
- So the food production system is under pressure.
- Farmers also need to increase exports to maintain incomes.
- The production of food for export needs to be closely monitored.
- Chinese people becoming very concerned with food safety

# Why is farming so challenging?

- I farmed in China for four years.
- It was very, very difficult!
- The whole country under huge environmental pressure-intensive farming/insufficient land.
- Climate challenging in many areas.
- Ongoing conversion of farmland to roads, factories and cities.
- 200 million more people will become consumers in the next 20 years putting more strain on resources.

# Farming in China has particular problems.

- **The main issues:**
- Heavy pest pressure
- Very small farms.
- Difficult climate & water problems-  
Too much or too little.
- **But also:**
- Salinization after heavy irrigation.
- Soil problems: Organic Matter Low.



# Farming in China has particular problems

- **But also**
- Problems in purchasing genuine inputs.
- Poor quality seeds and plants.
- Poor infrastructure post harvest for storage or delivery.
- Poor infrastructure of support services.



# Heavy pest pressure.



- I once saw a mob of these Army Beet Worm eat a 12 acre field of carrots!
- On our new farm we had to completely review our agronomic skills.



# Pest pressure

- Too little land and too much intensive cropping
- Problem made worse by the use of “warmhouses” in Northern China



# Farmers' knowledge of pesticide use limited.

- “If it doesn’t work use more.”
- Generally no understanding of anti-resistance strategy, by mixing and matching pesticide types.
- Inappropriate types of pesticides used.
- Label recommendations often very simple.
- Little awareness of the importance of harvest interval.



# Fragmented farming units.

- Each farmer allocated land. No rights to it.
- Maybe only 0.8-1mu (6mu =1 acre. ) per person.  
Maybe in several blocks.
- Farmers jealously guard this land.
- Reluctant to share and amalgamate with others.
- The rental cost of land is high (UK levels)
- However near cities larger farms developing as farmers move off land to other work.



# Water problems.

- Too much in the south. Not enough in the north.
- Huge project to develop 2 or maybe 3 canals to shift water from south to north.
- Inadequate water resources to guarantee the quality of crops, especially in the spring.
- Irrigation infrastructure generally crude leading to wastage of water.

# The export chain.

- Traditionally in China export licenses held by state-owned export organizations.
- All exports had to pass through them.
- Kept buyers and sellers apart to control the business
- Model farms and factories shown to customers. Product produced in less adequate facilities



# Now food chains developing

- Links now more effective. Factories and food groups developing direct relationships with customers
- But controls are still in infancy so must be familiar with supplier.
- And local wholesalers still try and discourage direct relationships.
- Markets still very important
- The most crucial question : Does the supplier **really** have access to suitable raw material & ability to pay for it!

# China's place in the world order of Agriculture.

- Already a net importer of food.
- This trend will continue.
- Cannot compete in the growing of commodities
- Only 5% of produce exported.
- Own market is developing fast.
- China is not a good place to farm.
- Short term gluts of particular products will occur, but China is not the threat that many perceive.

